



Docket No. TIP-0056USPCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants

GOYVAERTS, Nicolaas Martha Felix et al.

Serial No.

10/596,732

Filed

June 22, 2006

Title:

PROCESS FOR THE PREPARATION OF (3R,3AS,6AR)-

HEXAHYDROFURO [2,3-B] FURAN-3-YL (1S,2R)-3-[[(4-

AMINOPHENYL) SULFONYL] (ISOBUTYL) AMINO]-1-BENZYL-2-

HYDROXYPROPYLCARBAMATE

Art Unit

1625

Examiner

OWENS, Amelia M.

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

Applicant(s) reserve(s) the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist.

Docket Number: TIP-0056USPCT Application Number: 10/596,732

\boxtimes	In acco	ordance with §1.97(b), since this Information Disclosure Statement						
is being filed either within three months of the filing date of the above-identified								
national application (other than a continued prosecution application under §1.53(d)),								
within three months of the date of entry into the national stage of the above identified								
application as	set for	th in §1.491, or before the mailing date of a first Office Action on						
the merits of t	he abo	ve-identified application, or before the mailing date of a first Office						
Action after th	e filing	of a request for continued examination under §1.114, no						
additional fee	is requ	ired.						
	In acco	ordance with §1.129(a), this Information Disclosure Statement is						
being filed in o	connec	tion with the first or second After Final Submission,						
therefore:								
		Statement in Accordance with §1.97(e) (attached); or						
		Please charge Deposit Account No. 10-0750/ / the fee						
		of \$180.00 as set forth in §1.17(p).						
	In acco	ordance with §1.97(c), this Information Disclosure Statement is						
being filed afte	er the p	period set forth in §1.97(b) above but before the mailing date of						
either a Final .	Action	under §1.113 or a Notice of Allowance under §1.311, or an action						
that otherwise	closes	s prosecution and that it is accompanied by one of:						
		Statement in Accordance with §1.97(e) (attached); or						
		Please charge Deposit Account No. 10-						
		0750/TIP0025USPCT/AGK the fee of \$180.00 as set forth in						
		§1.17(p).						
☐ In a	accorda	ance with §1.97(d), this Information Disclosure Statement is being						
filed after the	mailing	date of either a Final Action under §1.113 or a Notice of						
Allowance und	der §	1.311 but before the payment of the Issue Fee. Applicant(s)						
hereby petition	n(s) for	consideration of this Information Disclosure Statement. Included						

Docket Number: TIP-0056USPCT Application Number: 10/596,732

are: Statem	nent in Accordance with §1.97(e) as set forth below and the fee of \$180.00
as set forth	in §1.17(p).
are enclose	Copies of each of the references listed on the attached Form PTO-1449 d herewith.
enclosed he	Copies of references listed on the attached Form PTO-1449 are erewith EXCEPT THAT:
	In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
	If any of the foregoing publications are not available to the Examiner, Applicant will endeavor to supply copies at the Examiner's request.
. 🖂 enclosed in	Copies of only foreign patent documents and non-patent literature are accordance with 37 CFR 1.98 (a)(2).
	There are no listed references which are not in the English language.
⊠ language is	The relevance of those listed references which are not in the English as follows: WO03/056665A1- English Translation Provided.

	Application Number: 10/596,732 corresponding patent
application(s), which are listed on the attached Submission	Under MPEP 609 D.
Attached are the following non-published pend	ding patent applications
which may be deemed relevant, which are listed on the atta-	ched Submission Under
MPEP 609 D.	•
Please charge any deficiency or credit any overpaym	ent to Deposit Account
No. 10-0750/TIP0056USPCT/AGK. This form is submitted	in triplicate.
Respectfully subm	itted,
/Alana G. Kriegsm	an/
Alana G. Kriegsma	 an
Reg. No. 41,747	•
Attorney for Applic	ants

Johnson & Johnson One Johnson & Johnson Plaza New Brunswick, NJ 08933-7003 (732) 524-1495 DATED: March 9, 2006

PE WAS TOO W

SUBMISSION UNDER MPEP 609 D

Page 1 of 1

Application Number	10/596,732
Filing Date	06/22/2006
First Named Inventor	Goyvaerts, Nicolaas
Group Art Unit	1625
Examiner Name	OWENS, Amelia A.
Attorney Docket Number	TIP-0056USPCT

FOREIGN PATENT DOCUMENTS Foreign Patent Document Pages, Columns, Lines, where relevant passages or relevant figures Name of Patentee or Examiner Cite Applicant of Cited Document Number⁴ KindCode5 appear No.1 OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITOL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), T^2 Examiner Cite volume-issue number(s), publisher, city and/or country where published Initials* International Search Report, International Application Number PCT/EP2004/053692, Date of Mailing of International Search Report, May 2, 2005.

Examiner	Date	
Signature	Considered	



PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet 2 of 3

persons are required to respond	to a collection of information unless it displays	a valid OMB control number.
	Application Number	10/596,732
	Filing Date	06/22/2006
LOSURE	First Named Inventor	Goyvaerts, Nicolaas
PLICANT	Group Art Unit	1625
PLICANI	Examiner Name	OWENS, Amelia A.
r)	Attorney Docket Number	TIP-0056USPCT

U.S. PATENT DOCUMENTS							
		U.S. Patent Document					
Examiner Initials	Cite No.1		d Code ² (known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document mm-dd-yyyy	Pages, Columns, Lines, where relevant passages or relevant figures appear	

FOREIGN PATENT DOCUMENTS								
Examiner	Cite		Patent Document		Name of Patentee or	Date of Publication of Cited Document mm-dd-yyyy	Pages, Columns, Lines, where relevant passages or relevant	
Initials	No.1	Office ³	Number ⁴ K	indCode ⁵	Applicant of Cited Document	00 ,,,,	figures appear	
		wo	98/07685	A1	Gilead Sciences, Inc.	02-26-1998		
£.		wo	99/48885	A1	Glaxo Group Limited	09-30-1999		
.•		wo	99/67417	A2	Dept. of Health & Human Services,United States of America	12-29-1999		
		wo	01/12599	A1	Samchully Pharm Co., Ltd.	02-22-2001		
		wo	01/46120	A1	Aeojet Fine Chemicals LLC	06-28-2001		
		wo	02/092595	A1	Tibotec Pharmaceuticals, Ltd.	11-21-2002		
		wo	03/106461	A2	Tibotec Pharmaceuticals, Ltd.	12-24-2003		
		wo	03/057665	A1	Ajinomoto Co., Inc. & English translation	07-17-2003		
		wo	03/022853	A1	Tibotec Pharmaceuticals, Ltd.	03-20-2003		
	;	wo	94/05639		Vertex Pharmaceuticals Inc.	03-17-1994		
	, ,	wo	95/06030		G.D Searle & Co.	03/02/1995		
	,	wo	96/28463		G.D Searle & Co.	09/19/1996	·	
		wo	96/28464		G.D. Searle & Co	09/19/1996		
		wo	97/18205		G.D. Searle & Co.	05/22/1997		

	 -		
Examiner		Date	
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08A (08-00) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet 3 of 3

	Application Number	10/596,732
	Filing Date	06/22/2006
CLOSURE PPLICANT	First Named Inventor	Goyvaerts, Nicolaas
	Group Art Unit	1625
	Examiner Name	OWENS, Amelia A.
у) .	Attorney Docket Number	TIP-0056USPCT

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
_	i	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item	
Examiner's Initials*	Cite No.1	(book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		Bodanszky, M., Principles of Peptide Synthesis, 1st and 2nd revised edition, 1984 and 1993, Springer-Verlag, New York.	
		Cerfontain, Hans., Mechanistic Aspects in Aromatic Sulfonation and Desulfonation, 1968, Interscience Publishers, New York.	
		CROSS L.C., et al., "Rules for The Nomenclature of Organic Chemistry, Section E: Sterochemistry.", Pure & Appl. Chem., 1976, Vol. 45, pages 11-30.	
i.		Fieser et al., Reagents for Organic Synthesis, 1994, Volume 17, John Wiley & Sons.	
		GHOSH, A.K. et al., "Nonpeptidal P2 Ligands for HIV Protease Inhibitores: Structure-Based Design Synthesis and Biological Evaluation.", <u>Journal of Medicinal Chemistry</u> , 1996 , Vol. 39, pages 3278-3290, American Chemical Society, Washington, US, XP002193358.	
		GHOSH, A.K. et al., "Potent HIV Protease Inhibitors Incorporating High-Affinity P2-ligands and (R)- Hydroxyethylamino)Sulfonamide Isostere.", <u>Bioorganic & Medicinal Chemistry Letters</u> , March 17, 1998 , Vol. 8, No. 6, pages 687-690, Oxford, GB, XP004136945.	
		Gilbert, Everett, E., Sulfonation and Related Reactions, 1977, Interscience Publishers, New York.	
		GREENE T. W., et al., "Protective Groups in Organic Synthesis", 2 nd edition, T W Greene & P G M Wutz, 1991, Wiley Interscience.	
		KIM, B.M. et al., "Synthesis of a Chiral Aziridine Derivativeas a Versatile Intermediate for HIV Protease Inhibitors.", Organic Letters, 2001, Vol. 3, No. 15, 2001, pages. 2349-2351, XP0001179485.	
		MARCH, J., "Advanced Organic Chemistry", 3 rd edition, 1985, pages 1036-1039.	
		McManus, S.P. et al., "The Synthesis of Aminoalcohols From Epoxides and Amonia.", Synthetic Communications, 1973, Vol. 3, No. 3, pages 177-180.	
		Paquette, Leo A., Encyclopedia of Reagents for Organic Synthesis, 1995, John Wiley & Sons, New York, US.	
		Stewart, J.M. et al., Solid Phase Peptide Synthesis, 2 nd edition, 1984, W.H. Freeman and Company, San Franciso, CA, US.	
	1 .	· · · · · · · · · · · · · · · · · · ·	

		·
Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA

22313-1450.

¹ Unique citation designation number, 2 Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

on Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet 1 of 3

Application Number	10/596,732
Filing Date	06/22/2006
First Named Inventor	Goyvaerts, Nicolaas
Group Art Unit	1625
Examiner Name	OWENS, Amelia A.
Attorney Docket Number	TIP-0056USPCT
1	1

		U.S. Patent Document				
Examiner Initials	Cite No. ¹	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document mm-dd-yyyy	Pages, Columns, Lines, where relevant passages or relevant figures appear
				· 		
		6248775	B1	G.D. Searle & Co.	06-19-2001	
		6455738	B1	Rhodia Chimie	09-24-2002	
						

FOREIGN PATENT DOCUMENTS Foreign Patent Document Date of Publication Pages, Columns, Lines, of Cited Document where relevant Name of Patentee or Examiner Cite passages or relevant т⁶ mm-dd-yyyy Applicant of Cited Document figures appear Initials KindCode⁵ Office³ Number⁴ No.1 EP 0715618 В1 G.D. Searle & Co. 12-16-1998 EP 0774453 **B**1 Ajinomoto Co., Inc. 02-06-2002 EΡ 0754669 В1 Kaneka Corporation 10-31-2001 ΕP B1 0129856 Kaneka Corporation 06-16-2004 FΡ 1067125 B1 Kaneka Corporation 07-26-2006 FΡ 1081133 R1 Ajinomoto Co., Inc. 03-31-2004 FΡ R1 1215209 Ajinomoto Co., Inc. 08-25-2004 WO 94/04492 G.D. Searle & Co. 03-03-1994 WO 96/22287 G.D. Searle & Co. 07-25-1996 WO 96/28418 Α1 G.D. Searle & Co. 09-19-1996 WO 96/28465 A1 G.D. Searle & Co. 09-19-1996 97/21685 Abbott Laboratories 06-19-1997

Examiner		Date		
Signature	•	Considered		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.